

Claims

1. A process for producing biodiesel fuel, wherein vegetable or animal oils and fats or wastes thereof are mixed with methanol, and a methanolysis reaction is carried out without the use of a catalyst under reaction conditions where glycerin is not generated.

2. The process according to claim 1, wherein the reaction conditions where glycerin is not generated constitute a reaction temperature of between 370°C and 500°C, a reaction pressure of between 20 MPa and 60 MPa, and a reaction period of between 4 minutes and 12 minutes.

3. The process according to claim 1, wherein degradation of a carbon chain in a fatty acid group is carried out in parallel with the methanolysis reaction.

4. The process according to claim 1, wherein the vegetable or animal oils and fats or wastes thereof are mixed with methanol at a volume ratio of 1:2 to 2:1.

5. The process according to claim 1, wherein the methanolysis reaction is carried out in a Hastelloy reaction tube in which adequate mixing conditions can be maintained.

6. Biodiesel fuel that is mainly composed of fatty acid methyl esters, monoacylglycerol, and diacylglycerol.